

**REMARKS**

Claims 5-8 are pending. Claims 1-4 are canceled without prejudice or disclaimer to the subject matter thereof.

It is believed that this Amendment is fully responsive to the Office Action dated **April 25, 2002**.

**Claim Objections:**

Claim 2 is objected to due to minor informalities. Claim 2 has been amended, as need, to overcome this objection.

Claim 2 is concurrently canceled herewith without prejudice or disclaimer to the subject matter thereof; thus, rendering any rejection applying thereto moot.

Reconsideration and withdrawal of this rejection are respectfully requested.

**Rejection Under 35 U.S.C. §103:**

Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over **Yamazaki et al.** (U.S. Patent No. 6,032,753) in view of **Cullen et al.** (U.S. Patent No. 5,414,994).

Claim 2 is concurrently canceled herewith without prejudice or disclaimer to the subject matter thereof; thus, rendering any rejection applying thereto moot.

Reconsideration and withdrawal of this rejection are respectfully requested.

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over **Yamazaki et al.** (U.S. Patent No. 6,032,753) in view of **Cullen et al.** (U.S. Patent No. 5,414,994) and further in view of **Kiuchi et al** (U.S. Patent No. 5,751,137).

Claim 4 is concurrently canceled herewith without prejudice or disclaimer to the subject matter thereof; thus, rendering any rejection applying thereto moot.

Reconsideration and withdrawal of this rejection are respectfully requested.

Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over **Yamazaki et al.** (U.S. Patent No. 6,032,753) in view of **Cullen et al.** (U.S. Patent No. 5,414,994) and further in view of **Kiuchi et al** (U.S. Patent No. 5,751,137).

Claim 3 is concurrently canceled herewith without prejudice or disclaimer to the subject matter thereof; thus, rendering any rejection applying thereto moot.

Reconsideration and withdrawal of this rejection are respectfully requested.

**New Claims:**

New claims 5-8 are added herein by amendment. These claims are drafted to pinpoint the relationship between an engine, a generator, and a motor in the present invention, and adds a clutch for performing the connection or disconnection of the transmission of power.

In the dependent claims, the states of the clutch are specified to distinguish the present invention from the prior art.

When the temperature is low and when the remaining charge is low, the clutch is engaged

so that the engine drives the vehicle while charging a power storage unit. Thus, the load on the engine is increased, and the temperature of a catalyst is also increased.

When the temperature is low and when the remaining charge is high, the clutch is disengaged so that the motor drives the vehicle by the energy of the power storage unit and by the generated electric power storage unit so as to increase the load on the engine. Thus, the temperature of the catalyst is increased. In this case, the clutch is disconnected, and the engine does not drive the vehicle. Therefore, the engine control is flexible, and the temperature of the catalyst is promptly increased.

These functions are supported by the description related to steps S13 and S16 in the specification.

When the temperature of the cooling water is equal to or below the water temperature reference value (step S11), the control circuit 18 reads the voltage value of the battery measured by the voltage sensor 23, and compares it with the voltage reference value which is stored in advance (step S12). When the voltage value of the battery 21 is equal to or below the voltage reference value, the control circuit 18 performs control of forcible charge mode. That is, the clutch is engaged by the clutch control actuator 19, the hybrid vehicle 50 is driven by the output from the engine E, the submotor MTRa1 receives the output from the engine E, generates electric energy, and charges the battery 21 (step S13).

Next, the control circuit 18 compares the detected result output from the water temperature sensor 23 with the water temperature reference value (step S14). When the temperature of the cooling water is above the water temperature reference value, the control circuit 18 terminates the

warm up control for the catalyst (step S16).

On the other hand, when the temperature of the cooling water is equal to or below the water temperature reference value, the control circuit 18 reads the detected result output from the voltage sensor 22, and compares it with the voltage reference value (step S12). When the detected result is above the voltage reference value, the control circuit 18 releases the clutch 12 via the clutch control actuator 19, the submotor MTRa1 receives the output from the engine, generates electric energy, and charges the battery 21 via the power drive unit 20. The control circuit 18 supplies the power from the battery 21 to the main motor MTRb13 via the power drive unit 20, drives the main motor MTRb13, and drives the hybrid vehicle 50 by the drive power from the main motor MTRb13 (step S15).

Allowance of newly added claims 5-8 is respectfully requested.

**CONCLUSION**

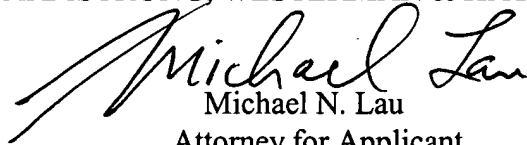
In view of the aforementioned amendments and accompanying remarks, all pending claims are believed to be in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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